

**WHAT IS CLAIMED IS:**

1. An access point apparatus, comprising:

a data network interface for obtaining video files from a data network;

a file storage medium coupled to said data network interface for storing said video  
5 files; and

a wireless communication interface coupled to said file storage medium for  
transmitting said video files to video clients via a wireless communication link.

2. The apparatus of Claim 1, wherein said video files are selected by a service  
10 provider for storage in said storage medium.

3. The apparatus of Claim 1, wherein said video files are selected for storage in  
said storage medium based on client requests for said video files.

4. The apparatus of Claim 3, wherein said video files stored in said file storage  
15 medium are requested by clients more frequently than other video files available in the data  
network.

5. The apparatus of Claim 1, provided as an access point server for a WLAN.  
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6. A method for wireless transmission of video data to wireless communication devices, comprising:

wirelessly transmitting to a first wireless communication device a first stream of data from a video file;

5 during said transmitting step, receiving from a second wireless communication device a request for said video file;

in response to said request, wirelessly transmitting to the second wireless communication device a second stream of data from said video file; and

10 after said last-mentioned transmitting step, wirelessly transmitting to both the first and second wireless communication devices a common stream of data from said video file.

7. The method of Claim 6, wherein said step of wirelessly transmitting said second stream of data includes wirelessly transmitting said second stream of data at a higher transmission rate than said first stream of data.

15 8. The method of Claim 7, wherein said step of wirelessly transmitting said second stream of data includes wirelessly transmitting said second stream of data at a higher transmission rate than said common stream of data.

9. The method of Claim 8, wherein said steps of wirelessly transmitting said first and common streams of data include wirelessly transmitting said first stream of data and said common stream of data at a mutually common transmission rate.

5 10. The method of Claim 7, including commencing said step of wirelessly transmitting said common stream of data in response to a determination that said second stream of data has reached a same data position in said video file as said first stream of data.

10 11. The method of Claim 10, including ending said first stream of data upon commencement of said step of wirelessly transmitting said second stream of data.

12. The method of Claim 6, including performing said step of wirelessly transmitting said common stream of data in response to a predetermined condition.

15 13. The method of Claim 12, wherein a portion of said video file has already been transmitted in said first stream of data when said request is received, and wherein said predetermined condition is that said portion of said video file is less than a predetermined fraction of said video file.

20 14. The method of Claim 13, wherein said predetermined fraction is 80%.

15. The method of Claim 12, including performing said first-mentioned transmitting step in response to receipt of a further request for said video file from the first wireless communication device, and wherein said predetermined condition is that said request is received less than a predetermined amount of time after receipt of said further request.

16. The method of Claim 15, wherein said amount of time is 1.5 hours.

17. The method of Claim 6, including commencing said step of wirelessly transmitting said common stream of data in response to a determination that said second stream of data has reached a same data position in said video file as said first stream of data.

18. The method of Claim 17, including ending said first stream of data upon commencement of said step of wirelessly transmitting said second stream of data.

19. A wireless communication apparatus, comprising:  
a wireless communication interface for permitting wireless communication with wireless communication devices;

a video stream source having an output coupled to said wireless communication interface for providing to said wireless communication interface streams of data from a video file, said wireless communication interface cooperable with said video stream source for wirelessly transmitting to a first wireless communication device a first stream of data from  
5 said video file;

said video stream source having an input coupled to said wireless communication interface for receiving from a second wireless communication device, during said wireless transmission of said first stream of data, a request for said video file, said video stream source and said wireless communication interface cooperable in response to said request for  
10 wirelessly transmitting to the second wireless communication device a second stream of data from said video file; and

said video stream source cooperable with said wireless communication interface, after transmission of said second stream of data to the second wireless communication device, for wirelessly transmitting to both the first and second wireless communication  
15 devices a common stream of data from said video file.

20. The apparatus of Claim 19, including a data network interface for obtaining said video file from a data network, said video stream source coupled to said data network interface.

21. The apparatus of Claim 20, wherein said video stream source includes a file storage medium for storing said video file.

22. The apparatus of Claim 19, provided as an access point server for a WLAN.